

# Risk-based food inspection

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# Outline

- What is food inspection & why is it important?
- Traditional vs. risk-based inspection systems
- Requirements of risk-based inspection
- Risk-based inspection and food imports?
- The role of government in promoting risk- based food inspection



## OUTPUT 1: SUMMARY OF LEGISLATIONS



- Mixed development of Food safety **policy, strategy** and **food safety law**
  - ALL countries subject to improvement in at least one of the above.
- **HACCP and GMP No mandatory requirements**
  - **Guidelines for inspection and checklists** needed
    - Capacity building needed
    - Firm transition periods needed
- **Product registration and product certification!!**
  - Still widely applied
- **Risk categorisation (Poorly developed)**
  - Domestic factories
  - Imported food products
- **Harmonisation** Food safety parameters
  - Very poorly developed.. Obstacles to trade

# Risk Analysis Framework



- Simple Module
- At EU Level it is more complex in reality
- The scientific element is risk assessment
- Risk management uses the output from the assessment to put in place actions to control hazards
- Risk communication is the dialogue between interested parties regarding the outputs of the above

# Risk Assessment Matrix

<b>PROBABILITY</b>				
<b>HIGH/LIKELY</b>	<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>	
<b>MEDIUM/UNLIKELY</b>	<b>LOW</b>	<b>MEDIUM</b>	<b>MEDIUM</b>	
<b>LOW/ HIGHLY UNLIKELY</b>	<b>LOW</b>	<b>LOW</b>	<b>LOW</b>	
	<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>	<b>SEVERITY</b>

# Food inspection

- *Examination of foods - or systems for the control of food, raw materials, processing and distribution - in order to verify they conform to requirements*

*Source: FAO/WHO, 1997*

- By **food producers** & manufacturers to ensure products are safe and conform
- By **inspection Managers & official inspectors** to determine compliance and enforce regulations: domestic/export/import



# Why is inspection important?

- Food regulation is useless without enforcement: inspection is vital
- Ensures producers/providers comply with food laws – consumer protection
- Legal sanctions/penalties can be applied for severe breaches of law
- Inspectors are direct link between government, producers and the public
- Strengthens linkages and collaboration between public and private sector



# Product-based food inspection 1

- **Traditional** inspection focus on compliance of food establishments with regulations/food standards
- Standards may be numerous; not up-to-date
- May require inspection of many premises & products and much testing (lab capacity?)
  - Problem: number of establishments to inspectors can be very high
  - Product inspection only a snapshot





## Product-based food inspection 2

- Inspector not present all the time - many situations may be missed
- Analyzing limited number of samples only a snapshot of production
- Laboratories may not have appropriate equipment, staff or procedures
- Sampling of products usually requires large numbers of tests; low probability of finding failed foods



## Product-based food inspection 3

- Non-compliance dealt with by fines and corrective action
  - Problem: Fines do not necessarily ensure industry compliance in long term
  - Regulations may be obsolete
  - No assurance there will not be recurrence of the violation
- High cost to food control agencies: numerous inspections, laboratory tests

# Risk-based food control systems

**“Hazards that may cause foodborne disease in consumers if left uncontrolled”**

- Microbiological pathogens, chemical (natural or contaminant), physical
- Risks may be common to many countries, or
- Unique to a particular country, food or operation, traditional processing and handling methods



# Risk-based food inspection

- Considers risks of hazards being in the food
- Assesses whether measures in place are adequate to manage food safety hazards
- Assesses safety systems and plans:  
*sampling/testing is only for system verification*
- Partnership between inspector and food producer & supplier



# Risk based food inspection requires

- Risk analysis
  - Risk assessment analysis (food types, production methods, processes, consumption patterns)
  - Categorization of foods: high, medium or low risk
  
- Inspection prioritization
  - Based on product risk analysis, and
  - History of compliance

## Risk-based Inspection activities

- Inspecting premises and processes
- Evaluating food safety plans
- Sampling food during harvest, processing, storage, transport or sale
- Recognizing spoiled or unfit food or food that is deceptively sold to consumers
- Recognizing, collecting, and transmitting evidence
- Encouraging use of voluntary quality assurance systems
- Conducting inspection, sampling, and certification of food for import/export purposes
- Conducting risk-based audits of food establishments to
  - verify safety assurance programs

# Advantages of focusing inspection on risk factors

- Better use of inspector's scarce time
- A method to determine the adequacy of a producer's food quality assurance system
- Ensures the food control system works all the time: is not a snapshot of produce safety
- Product samples are collected and analysed only for verification purposes and not as a means to ensure product safety

# Traditional versus risk-based inspection

## Traditional

- Emphasis on product / premise inspection
- Corrective (sanctions)
- Inspection is planned randomly
- Sample collection for product safety assurance purpose

## Risk-based

- Emphasis on process inspection
- Preventive (advice)
- Inspection is based on risk factors and compliance history
- Sample collection for process verification purpose



# Requirements for implementing risk-based food inspection systems

- Inspectors must have a good knowledge of foodborne illness/ risk factors / production processes to address hazards. HACCP
- Partnership between inspectors and food producers
- A supportive food control system
- Commitment from all stakeholders along the food chain to Implement HACCP, GMP



## Skills of Inspectors

- Inspector integrity and skills are vital for any functioning control system; Knowledge of HACCP, GHP, GMP etc.

### Requirements

- Trained in food science and technology, experienced in inspecting premises
- Good understanding of relevant food laws and regulations
- Understands procedures of collecting evidence, writing reports, collecting samples and laboratory analysis
- Trained to audit handle food safety systems



## Risk-based inspection and food imports?

- Risk-based inspection rely on food producers having food safety management systems
  - Domestic inspectors cannot oversee systems of exporting country producers!
  - How can risk-based inspection apply to food imports?
  - By 'inspecting' if exporting country applies risk-based food control!
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## Risk-based inspection and food imports 2

- Importing countries can risk rank imported foods
- Can require assurances/certification that exported foods comply with domestic food control standards (is it risk based?)
- Inspect documentation
- Sample and test risk foods (low rate surveillance foods)
- Actions and sanctions based on risk and performance



Would risk-based inspection operate  
in CAREC Region?

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